

# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

May 5, 2010

Denison Mines (USA) Corp. 1050 17<sup>th</sup> Street, Suite 950 Denver, Colorado 80265

Subject: Review of the Amended Notice of Intention to Commence Large Mining Operations, Denison

Mines (USA) Corp, LaSal Snowball Mine, M/037/0026, San Juan County, Utah

Dear Ms. Woodward:

The Division has completed a review of your Notice of Intention to Commence Large Mining Operations for the LaSal Snowball Mine Mine, which was received February 1, 2010. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages of the original mining notice using redline and strikeout text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records.

The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at 801-538-5261 or Tom Munson, at 801-538-5321. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker

Minerals Program Manager

PBB:tm:vs Attachment: Review

cc: Marie mcgann@blm.gov

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# REVIEW OF AMENDED NOTICEOF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Denison Mines (USA) Corp LaSal Snowball Mine M/037/0026 May 5, 2010

106.6 - Plan for protecting & re-depositing soils

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
1	Page 16	Current plan is to salvage 36 inches of soil material from areas of new disturbance. Please plan to salvage all available suitable soils from areas of new disturbance (soil data indicate that there may be in excess of 6 feet in some areas). Excess soil material could be used to help revegetate areas of past disturbance where soils were not salvaged (even an inch or two of topsoil on these areas can make a significant difference in establishing vegetation).	lk	
2	Page 33	Please indicate the average depth of soil replacement. If soil depth will vary due to type of disturbance, then list the average depth of soil replacement for each type of disturbance.		
3	Page 37	Page 37 Refer to above comment regarding depth of soil replacement. Substitute soils or growth media from areas that do not receive topsoil may need to be amended to achieve successful revegetation. Consider amending these areas with up to 10 ton/acre of composted manure or biosolids. Addition of commercial fertilizers is not required.		

### R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
4		The plan describes a culvert that will remain at the Pandora mine following mining.  The Division does not allow a culvert to remain based on the potential for plugging and maintenance issues. Please provide an open channel design for the reclaimed phase of the mine.		

#### R647-4-110 - Reclamation Plan

110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
The Division does n		The plan describes a culvert that will remain at the Pandora mine following mining. The Division does not allow a culvert to remain based on the potential for plugging and maintenance issues. Please provide an open channel design for the reclaimed phase of the mine.	tm	

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110.5 - Revegetation planting program

Comm ent #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
6	Page 38	It is unlikely that the seed mix provided will establish a permanent, diverse vegetation community capable of meeting the post mining land use needs. Seed mixes for final vegetation should consist of 4-5 grass species, 3-4 forb species and 3-4 shrub species. Attached is a recommended seed mix. If it is acceptable, please incorporate it into your plan.	lk	
7	Page 39	As stated earlier, please consider using up to 10 tons per acre of composted manure or biosolids to amend soils.		
8	Weed Manageme nt Plan	The list of noxious weeds on page 3 of the Weed Management Plan is not complete, but the list from utahweed.org is. Please update the list in Table 1.	pbb	

## R647-4-113 - Surety

Please include the costs for plugging each of the ventilation shafts. The plan says that 24 ventilation shafts will be constructed in Phase 1, 23 in Phase 2, and 12 in Phase 3. Posting the bond for Phase 2 and 3 shafts could be postponed by committing not to construct these shafts until additional bond is posted.		whw
10	Please include in the bond the cost to plug each exploration hole. The bond could be reduced by committing to drill a limited number of holes and then plugging them. It would be necessary to submit a drilling report saying the holes had been plugged. If the holes are dry, the hole plugging cost is \$210.00 each.	whw
11	Please use R.S. Means 2010 costs. The Division can supply the updated unit costs on request.	whw
12	The earthwork worksheet is based on data from Equipment Watch's Blue Book. If you are using R. S. Means costs, please modify the demolition worksheets and use those for earthwork.	whw
13	The indirect costs are:  Mob/demob (10%). This includes transportation of equipment to and from the job site but also performance bonds and permits Contingency (5%). Engineering redesign (2.5%). Main office expense (6.8%). This is the in-house cost the Division would incur while going through the forfeit procedure and arranging to have the work done. Project management fee (2.5%) the cost of having a Division representative on the ground while work is being done.  Total indirect cost is 26.8% of direct costs; please use the Division's indirect costs.	whw
14	The escalation factor for 2010 is 0.5% per year.	whw

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# Recommended Revegetation Species List for

### Denison Mines. LaSal, Snowball, Pandora Mine Complex M/037/026

	Total Seed	13.1 lbs/ac
Rubber Rabbitbrush	Chrysothamnus nauseosus	0.25
Bitterbrush	Purshia tridentata	1.0
4-wing saltbush	Atriplex canescens	1.0
Black sagebrush	Artemisia tridentata wyomingensi.	0.1
Scarlet Globemallow	Sphaeralcea coccinea	0.5
Palmer penstemon	Penstemon palmerii	0.5
Pacific aster	Aster chilensis	0.25
Cicer Milkvetch	Astragalus cicer	1.0
Basin wildrye	Elymus cinereus	1.5
Indian ricegrass	Stipa hymenoides	2.0
Bluebunch wheatgrass	Agropyron spicatus	1.0
Western wheatgrass	Elymus smithii	2.0
Thickspike wheatgrass	Elymus lanceolatus	2.0
Common Name	Species Name	*Rate lbs/ac (PLS)

<sup>\*</sup> Rate is recommended for broadcast seeding.